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(7 AND 6).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	4
(L6 AND L7).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	4

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**Search Results - Record(s) 1 through 4 of 4 returned.**☐ 1. Document ID: US 20010051708 A1

L8: Entry 1 of 4

File: PGPB

Dec 13, 2001

PGPUB-DOCUMENT-NUMBER: 20010051708

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010051708 A1

TITLE: Process for producing immunoglobulins for intravenous administration and other immunoglobulin products

PUBLICATION-DATE: December 13, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Laursen, Inga	Hellerup		DK	
Teisner, Borge	Odense C		DK	

US-CL-CURRENT: 530/387.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 2. Document ID: US 6281336 B1

L8: Entry 2 of 4

File: USPT

Aug 28, 2001

US-PAT-NO: 6281336

DOCUMENT-IDENTIFIER: US 6281336 B1

TITLE: Process for producing immunoglobulins for intravenous administration and other immunoglobulin products

DATE-ISSUED: August 28, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Laursen; Inga	Hellerup			DKX
Teisner; B.o slashed.rge	Odense C			DKX

US-CL-CURRENT: 530/390.1, 424/176.1, 424/177.1, 530/390.5, 530/414, 530/416, 530/417, 530/420, 530/421

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Desc
Image												

☐ 3. Document ID: US 5908827 A

L8: Entry 3 of 4

File: USPT

Jun 1, 1999

US-PAT-NO: 5908827

DOCUMENT-IDENTIFIER: US 5908827 A

TITLE: Protein from urine named component B

DATE-ISSUED: June 1, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sirna; Antonino	Rome			ITX

US-CL-CURRENT: 514/12; 435/252.3, 435/254.11, 435/254.2, 435/320.1,  
435/69.1, 530/412, 536/23.1, 536/23.5, 536/24.31

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Desc
Image												

☐ 4. Document ID: US 5807711 A

L8: Entry 4 of 4

File: USPT

Sep 15, 1998

US-PAT-NO: 5807711

DOCUMENT-IDENTIFIER: US 5807711 A

TITLE: Parenchymal hepatocyte growth factors

DATE-ISSUED: September 15, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hara; Hiroshi	Tokyo			JPX
Yoshimura; Hiromitsu	Tokyo			JPX
Matsuki; Yumiko	Tokyo			JPX
Shindo; Saeko	Tokyo			JPX
Hanada; Kazunori	Tokyo			JPX

US-CL-CURRENT: 435/69.4; 435/243, 435/320.1, 435/325, 530/399, 530/413,  
536/23.51

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Desc
Image												



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Term	Documents
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(L6 AND L7).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	4

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-----	-------	-------------

S1	2282	"IGG4"
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S2	445	S1/TI
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S3	0	S2 AND COHN?
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S4	3	S1 AND COHN?
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?s s2 and purif?

445	S2
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578530	PURIF?
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S5	52	S2 AND PURIF?
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?s s2 (5n) purif?

445	S2
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578530	PURIF?
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S6	2	S2 (5N) PURIF?
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?t s6/9/all

# WEST Search History

DATE: Monday, April 29, 2002

## S t Name Query

side by side

## Hit Count Set Name

result set

*DB=USPT; PLUR=YES; OP=AND*

L1	igg4 or igg-4 or ig-g4 or (igg near5 4)	1394	L1
L2	L1.clm.	54	L2
L3	L2 and cation\$.clm. and anion\$.clm.	0	L3
L4	cation\$.clm. and anion\$.clm.	12624	L4
L5	L4 and l1	6	L5
L6	(immune or immunoglobulin) near 4	152	L6
L7	L6 or l1	1521	L7
L8	L7 an dl4	0	L8
L9	L7 and l4	6	L9
L10	L9 not l5	0	L10

END OF SEARCH HISTORY

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit</u> <u>Count</u>	<u>Set</u> <u>Name</u> result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i>			
<u>L8</u>	l6 and l7	4	<u>L8</u>
<u>L7</u>	DEAE SEPharose resin	11	<u>L7</u>
<u>L6</u>	CM Sepharose	699	<u>L6</u>
<u>L5</u>	cation exchange resin	16771	<u>L5</u>
<u>L4</u>	anion exchange resin	13658	<u>L4</u>
<u>L3</u>	L2 and L1	0	<u>L3</u>
<u>L2</u>	Immunoglobulin separation	13	<u>L2</u>
<u>L1</u>	IgG4	540	<u>L1</u>

END OF SEARCH HISTORY

\*  
DIALOG(R)File 144:Pascal  
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10302108 PASCAL No.: 92-0250408

**Etude du comportement chromatographique des sous-classes d'IgG humaines.  
Mise au point d'une methode de dosage des sous-classes d'IgG dans les  
preparations d'immunoglobulines**

**(Study of the chromatographic behaviour of human IgG subclasses  
development of an IgG subclasses titration technique)**

BRIDONNEAU Philippe; LEDERER Florence, dir

Univ.: Universite de Paris 06. FRA Degree: Th. doct. : Biochim.

1990-10; 1990 180 p.

Availability: INIST-T 78021; T90PA066431 0000

No. of Refs.: 122 ref.

Document Type: T (Thesis) ; M (Monographic)

Country of Publication: France

Language: French Summary Language: French; English

Afin d'ameliorer la qualite des preparations d'immunoglobulines qu'il propose, le CNTS s'interesse a la purification des immunoglobulines par des techniques chromatographiques. Nous avons donc entrepris l'etude du comportement des 4 sous-classes d'IgG humaines sur 4 supports chromatographiques differents, compatibles avec une utilisation industrielle: hydrophobe, thiophile, echange d'ions et hydroxyapatite. Pour cela, il nous a fallu mettre au point une methode de dosage des sous-classes d'IgG, adaptee a notre produit de depart (solution d'immunoglobulines obtenues par precipitation a l'alcool et a l'acide caprylique: Allergamma). Ce dosage repose sur une technique Elisa simple couche. Pour chaque type de gel, nous avons fait varier differents parametres pouvant intervenir sur les performances des colonnes (pH, force ionique, nature du sel, temperature...). Les gels peuvent etre regroupes en 2 categories. Sur les gels d'interactions hydrophobes et d'adsorption thiophile, en presence de sulfate d'ammonium 1M, la plupart des immunoglobulines s'adsorbent sur le gel. Elles sont eluees tout le long d'un gradient de force ionique decroissante. Il y a donc un comportement heterogene des immunoglobulines, mais il n'y a pas d'elution selective en fonction de la sous-classe d'IgG. Sur les gels echangeurs d'anions et sur hydroxyapatite, on peut, a faible molarite et a pH basique, obtenir une fraction enrichie en IgG2 (72%) et en IgG4 (7%), peu adsorbee sur la colonne. En revanche, sur un gel echangeur de cations, a faible molarite et a pH acide, une fraction tres enrichie en IgG4 (20%) est eluee en fin de gradient de force ionique croissante

French Descriptors: Immunoglobulines; Chromatographie; Elisa; Sous-classes d'IgG

Classification Codes: 002A06B03A; 430A06E

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\$0.04	0.008	DialUnits	File5
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\$0.03	Estimated cost	File91	
\$0.03	0.008	DialUnits	File94



7  
\* A fractionation method for human blood for the separation subclasses of IgG]

Un metodo di frazionamento del siero umano per la separazione delle sottoclassi delle IgG.

Merlino C; Angeretti A; Ferrara B; Negro Ponzi A

Giornale di batteriologia, virologia ed immunologia (ITALY) Jan-Jun 1985, 78 (1-6) p77-85, ISSN 0390-5462 Journal Code: FAF

Languages: ITALIAN

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

A serum fractionation method which permits a good separation among IgG subclasses is proposed. By loading serum on a Protein A-sepharose column, IgG3 are readily recovered as they do not bind to the Protein A. IgG of the other subclasses are eluted, equilibrated at pH 6 and loaded either on a chromatofocusing column, or on an anion exchanger gel. In these conditions

IgG4 are retained, and then recovered by lowering the pH, whereas IgG1 and IgG2 pass through the column and can be recovered separately by absorption on a Protein A column and elution with a decreasing pH gradient.

Tags: Human; Support, Non-U.S. Gov't

Descriptors: \*Blood Specimen Collection--methods--MT; \*IgG--isolation and purification--IP; Enzyme-Linked Immunosorbent Assay; Hydrogen-Ion Concentration

CAS Registry No.: 0 (IgG)

Record Date Created: 19861020

\* High quality human immunoglobulin G purified from Cohn fractions by liquid chromatography.

Tanaka K; Sawatani E; Dias GA; Shigueoka EM; Campos TC; Nakao HC; Arashiro F

Divisao de Pesquisa e Desenvolvimento Industrial, Fundacao Pro-Sangue Hemocentro de Sao Paulo, Sao Paulo, SP, Brasil.  
georgiaandrade@originet.com.br

Brazilian journal of medical and biological research (BRAZIL) Jan 2000, 33 (1) p27-30, ISSN 0100-879X Journal Code: BOF

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

In order to obtain intravenous immunoglobulin G (iv IgG) of high quality from F-I+II+III or F-II+III pastes prepared by the Cohn method, we developed a chromatography process using ion exchange gels, Q-Sepharose FF and CM-Sepharose FF, and Sephacryl S-300 gel filtration. Viral inactivation was performed by incubating the preparation with pepsin at pH 4.0 at 35 degrees C for 18 h. The characteristics of 28 batches produced by us were: yield 4.3 +/- 0.2 g/l plasma, i.e., a recovery of 39.1 +/- 1.8%; IgG subclasses distribution: IgG1 = 58.4%, IgG2 = 34.8%, IgG3 = 4.5% and **IgG4** = 2.3%; IgG size distribution was 98.4% monomers, 1.2% dimers and 0.4% polymers and protein aggregates; anticomplement activity was less than 0.5 CH50/mg IgG, and prekallikrein activator activity (PKA) was less than 5 IU/ml. These characteristics satisfied the requirements of the European Pharmacopoea edition, and the regulations of the Brazilian Health Ministry (M.S. Portaria No. 2, 30/10/1998).

Tags: Human; Support, Non-U.S. Gov't

Descriptors: \*Chromatography, Liquid--methods--MT; \*IgG--isolation and purification--IP; \*Immunoglobulins, Intravenous--standards--ST; Reference Standards

CAS Registry No.: 0 (IgG); 0 (Immunoglobulins, Intravenous)

Record Date Created: 20000605

High quality human immunoglobulin G purified from Cohn fractions by liquid chromatography .

Tanaka K; Sawatani E; Dias GA; Shigueoka EM; Campos TC; Nakao HC; Arashiro F

Divisao de Pesquisa e Desenvolvimento Industrial, Fundacao Pro-Sangue Hemocentro de Sao Paulo, Sao Paulo, SP, Brasil.  
georgiaandrade@originet.com.br

Brazilian journal of medical and biological research (BRAZIL) Jan 2000, 33 (1) p27-30, ISSN 0100-879X Journal Code: BOF

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

In order to obtain intravenous immunoglobulin G (iv IgG) of high quality from F-I+II+III or F-II+III pastes prepared by the Cohn method, we developed a chromatography process using ion exchange gels, Q-Sepharose FF and CM-Sepharose FF, and Sephacryl S-300 gel filtration. Viral inactivation was performed by incubating the preparation with pepsin at pH 4.0 at 35 degrees C for 18 h. The characteristics of 28 batches produced by us were: yield 4.3 +/- 0.2 g/l plasma, i.e., a recovery of 39.1 +/- 1.8%; IgG subclasses distribution: IgG1 = 58.4%, IgG2 = 34.8%, IgG3 = 4.5% and **IgG4** = 2.3%; IgG size distribution was 98.4% monomers, 1.2% dimers and 0.4% polymers and protein aggregates; anticomplement activity was less than 0.5 CH50/mg IgG, and prekallikrein activator activity (PKA) was less than 5 IU/ml. These characteristics satisfied the requirements of the European Pharmacopoea edition, and the regulations of the Brazilian Health Ministry (M.S. Portaria No. 2, 30/10/1998).

Tags: Human; Support, Non-U.S. Gov't

Descriptors: \*Chromatography, Liquid--methods--MT; \*IgG--isolation and purification--IP; \*Immunoglobulins, Intravenous--standards--ST; Reference Standards

CAS Registry No.: 0 (IgG); 0 (Immunoglobulins, Intravenous)

Record Date Created: 20000605

06759099 91266422 PMID: 249854

**Ligand affinity chromatographic separation of serum IgG on recombinant protein G-silica.**

Cassulis P; Magasic MV; DeBari VA

Department of Medicine, Seton Hall University, School of Graduate Medical Education.

Clinical chemistry (UNITED STATES) Jun 1991, 37 (6) p882-6, ISSN 0009-9147 Journal Code: DBZ

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

We purified IgG by an automated chromatographic procedure, using a recombinant DNA-produced Protein G ligand bound to silica as the solid phase. The IgG can be separated from human serum in approximately 20 min with little operator manipulation. Recovery studies indicate that unconcentrated eluates contain 77-100% of the applied IgG. Concentration to volumes approximating that of the applied serum resulted in recovery of 76-98% of the applied IgG. High-resolution protein electrophoresis of the eluates demonstrated retention of the broad gamma band, with virtual absence of other serum proteins. This finding was confirmed by immunoelectrophoresis, which demonstrated homogeneity of IgG in the eluates. IgG subclass distributions in four eluates, compared with the sera from which they were harvested, indicate comparable percentages of IgG1, IgG2, and IgG3 and some enhancement of the IgG4 fraction [serum IgG4 : 2.9 +/- 0.4% (SEM); eluate IgG4 : 13.8 +/- 1.7%, P = 0.007]. The reactivity of eluates from two sera containing various antibodies to human immunodeficiency virus type 1 was virtually identical to that of the sera from which they were prepared. We conclude that this chromatographic application is an effective purification method for serum IgG and antibodies of the IgG class. The method may be applicable in the specialty clinical laboratory, particularly in those interested in protein and other immunological abnormalities.

Tags: Human

Descriptors: \*HIV-1--immunology--IM; \*IgG--isolation and purification--IP ; Chromatography, Affinity; Immunoelectrophoresis--methods--MT; Multiple Myeloma--blood--BL; Multiple Myeloma--immunology--IM; Recombinant Proteins CAS Registry No.: 0 (IgG); 0 (Recombinant Proteins)

**Bacteroides-specific IgG and IgA subclass antibody-secreting cells  
isolated from chronically inflamed gingival tissues.**

Ogawa T; McGhee ML; Moldoveanu Z; Hamada S; Mestecky J; McGhee JR; Kiyono

H

Department of Oral Biology, University of Alabama, Birmingham 35294.

Clinical and experimental immunology (ENGLAND) Apr 1989, 76 (1)

p103-10, ISSN 0009-9104 Journal Code: DD7

Contract/Grant No.: AI 21032, AI, NIAID; DE 04217, DE, NIDCR; DE 08228,  
DE, NIDCR; +

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The emergence of cells that produce IgG and IgA subclass antibodies to *Bacteroides gingivalis* (*Porphyromonas gingivalis*) fimbriae and lipopolysaccharide (LPS) antigens was examined in mononuclear cells isolated from inflamed gingiva of different stages (slight, moderate or advanced) of adult periodontitis (AP). Antigen-specific IgM, IgG (including IgG1, IgG2, IgG3 and **IgG4**) and IgA (including IgA1 and IgA2) producing cells were enumerated by the ELISPOT assay and were compared with total Ig-producing cells of each isotype or subclass. In advanced AP, the *B. gingivalis* fimbriae-specific IgG- and IgA-secreting cells represented 5% of total IgG- or IgA-secreting cells, while those from the moderate stage comprised approximately 1% of these two isotypes. Cells producing antibody specific for *B. gingivalis* LPS were observed at frequencies of 0.1% and 0.4% for IgG and IgA cells, respectively in the advanced stage. When IgG subclasses were analysed in moderate AP, the anti-fimbriae subclass responses were largely IgG1 (60%), followed by IgG2 (20%), IgG3 (10%) and **IgG4** (10%). Fimbriae-specific IgG subclass responses were elevated in the advanced stage of AP, and **IgG4** (40%) and IgG1 (30%) were dominant, followed by IgG3 (20%) and IgG2 (10%). IgA1 cells predominated in both the moderate and advanced stages, however a relative increase in IgA2 cells occurred in advanced AP. Mononuclear cells isolated from gingiva of AP patients did not contain cells producing antibody to antigens such as *Escherichia coli* K235 LPS, cholera toxin or the hapten dinitrophenyl coupled to bovine serum albumin. These results show that local IgG and IgA subclass responses occur to a protein antigen of a major periodontal disease (PD)-associated pathogen, *B. gingivalis*, and the increase in **IgG4** and IgA2 responses may be associated with host protection.

**Preparation of human sera containing one single IgG subclass using affinity chromatography .**

Persson MA

Journal of immunological methods (NETHERLANDS) Apr 2 1987, 98 (1)  
p91-8, ISSN 0022-1759 Journal Code: IFE

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Monoclonal antibodies reactive against one or three human IgG subclasses were immobilised on agarose beads, put into columns and used in combination with coupled polyclonal anti-IgA and anti-IgM reactive gels to obtain serum preparations devoid of IgA, IgM and all but one IgG subclass. This was possible after one single run over the appropriate combination of columns; only for **IgG4** preparations was a second purification step sometimes required to reach purity. Negative affinity chromatography was used throughout, thus the resulting preparations had not been exposed to high ionic strength conditions, non-physiological pH buffers or chaotropic agents in concentrations ordinarily used to elute bound material from affinity columns. The yield was approximately 50% and 20-30% if two runs were required. Regeneration of the columns permitted repetitive use, so far up to 30 times without substantial loss of activity. The protocol offers an easy, comparatively fast and reproducible method to obtain human serum preparations containing only IgG1,2,3, or 4.

Tags: Human; Support, Non-U.S. Gov't

Descriptors: \*Chromatography, Affinity--methods--MT; \*IgG--isolation and purification--IP; Antibodies, Monoclonal--pharmacology--PD; Antibody Specificity; Hydrogen-Ion Concentration; IgA--isolation and purification--IP; IgG--classification--CL; IgM--isolation and purification--IP; Immunoglobulins, Fab--analysis--AN; Immunoglobulins, Fc--analysis--AN; Osmolar Concentration

CAS Registry No.: 0 (Antibodies, Monoclonal); 0 (IgA); 0 (IgG); 0 (IgM); 0 (Immunoglobulins, Fab); 0 (Immunoglobulins, Fc)

Record Date Created: 19870512

**Purification of human IgG4 subclass with allergen-specific blocking activity.**

Lambin P; Bouzoumou A; Murrieta M; Debbia M; Rouger P; Leynadier F; Levy DA

Institut National de Transfusion Sanguine, Paris, France.

Journal of immunological methods (NETHERLANDS) Sep 27 1993, 165 (1) p99-111, ISSN 0022-1759 Journal Code: IFE

Erratum in J Immunol Methods 1994 Feb 28;169(1) 139-40

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Blocking antibodies (bAb) induced by allergen immunotherapy are restricted to the IgG1 and IgG4 subclasses, with IgG1 predominating early and IgG4 coming later. Study of IgG4 bAb has been limited, in part, by the absence of a method to purify IgG4. We describe a rapid immunoaffinity chromatographic method for the purification of that subclass from whole serum. Starting serum (TR) contained 90 micrograms/ml Dactylis glomerata (orchard grass) pollen (DGP)-specific IgG4, measured by indirect ELISA. The blocking activity of TR was assayed in vitro on IgE-sensitized human basophils. Immunoabsorption on a strong-binding anti-IgG4 monoclonal antibody (mAb) removed about 90% of the total and allergen-specific IgG4 and nearly all of the blocking activity from TR. An IgG4-rich fraction was then obtained by absorption of several small volumes of TR on a weak-binding anti-IgG4 mAb column at neutral pH followed by elution with glycine-HCl buffer. The pooled eluates contained 82% IgG4, amounting to a 65-fold purification of the serum IgG4; the yield was approximately 30%. Nearly all the DGP-specific antibody was in the IgG4 component of the eluate. The blocking activity of the eluate was approximately equal to that of TR. Immunoblot patterns with the eluate and with TR on SDS-PAGE of DGP were nearly identical. This method thus provides a fully active, relatively pure IgG4 blocking antibody. Moreover, the results reinforce the importance of using a well-chosen mAb when purifying proteins by immunoaffinity chromatography.

Tags: Human; Male

Descriptors: \*Allergens--immunology--IM; \*IgG--isolation and purification --IP; \*Pollen--immunology--IM; Adult; Antibodies, Monoclonal--immunology --IM; Antibody Specificity; Basophil Degranulation Test; Basophils --immunology--IM; Chromatography, Affinity; Desensitization, Immunologic; Electrophoresis, Polyacrylamide Gel; Enzyme-Linked Immunosorbent Assay; Hypersensitivity--immunology--IM; IgE--immunology--IM; IgG--classification --CL

CAS Registry No.: 0 (Allergens); 0 (Antibodies, Monoclonal); 0 (IgG); 37341-29-0 (IgE)

Record Date Created: 19931109

**Crossed immunoelectrophoresis and electroimmunoassay of human IgG subclasses.**

Oxelius VA

Acta pathologica et microbiologica Scandinavica. Section C, Immunology (DENMARK) Jun 1978, '86C (3) p109-16, ISSN 0304-1328 Journal Code: 103

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Human IgG1, IgG2, IgG3 and **IgG4** in WHO pool 67/97, a normal serum pool, **Cohn** Fraction II and individual sera were examined by crossed immunoelectrophoresis and electroimmunoassay in agarose with IgG subclass specific rabbit antisera. In these methods the fact that IgG subclasses differ in the electrophoretic field is utilized: **IgG4** is located anodically, IgG3 cathodically, and IgG2 and IgG1 both anodically and cathodically. The mean, S.D. and range of serum IgG1, IgG2, IgG3 and **IgG4** in 20 normal adults found by the electroimmunoassay were given and related to the amount in the WHO pool 67/97. The IgG subclasses values obtained by electroimmunoassay agreed with the values obtained by single radial diffusion. The reproducibility of double determinations (interplate variations) was 1.5--5.5 per cent. Repeated freezing, thawing and storage of the serum at room temperature did not influence quantitation of IgG subclasses. **Cohn** Fraction II was found to contain smaller amounts of IgG1, IgG2, and **IgG4** than those found in the normal serum pools. Crossed immunoelectrophoresis and electroimmunoassay also easily reveal failing quality of IgG subclass antisera. To obtain good antisera in rabbits against IgG subclasses immunization should be done with several myeloma proteins with different electrophoretic mobility within the same subclass.

Tags: Human



**IgG subclass antibodies to herpes simplex virus.**

Coleman RM; Nahmias AJ; Williams SC; Phillips DJ; Black CM; Reimer CB

Journal of infectious diseases (UNITED STATES) May 1985, 151 (5)  
p929-36, ISSN 0022-1899 Journal Code: IH3

Contract/Grant No.: 1-P01-AI-19554-01, AI, NIAID

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

Several mouse monoclonal antibodies specific for human IgG1, IgG2, IgG3, and **IgG4** were evaluated by enzyme-linked immunosorbent assay to detect human IgG subclass antibodies to herpes simplex virus (HSV) antigens. The variable results with different monoclonal antibodies point to the need for well-characterized reagents in the study of antibody responses to infectious agents. The 204 sera tested were obtained from 157 patients with various forms of clinically manifest HSV infections and from several controls. IgG1 antibodies were demonstrated in almost all HSV-infected subjects and were the first antibodies to appear in primary genital infections. IgG2, IgG3, and **IgG4** antibodies were detected in acute-phase sera, most often in patients with recurrent genital herpes but in none of those with primary infections. **IgG4** antibodies occurred significantly more frequently in sera from men than in those from women with recurrent genital infections.

Measurement of IgE, IgG1 and IgG4 antibodies against mite Sephadex fractions and purified allergens by means of enzyme-linked immunosorbent assay]

Nakada S; Saito A; Yasueda H; Shida T; Nakagawa T; Haida M; Ito K; Miyamoto T

Arerugi (JAPAN) Jan 1989, 38 (1) p9-15, ISSN 0021-4884  
Journal Code: 8L8

Languages: JAPANESE

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Mite antigens (*Dermatophagoides farinae*) were fractionated by a Sephadex G-200 column and their reactivities with IgE, IgG1 and IgG4 antibodies were investigated with enzyme-linked immunosorbent assay (ELISA). High IgE antibody values were observed in fractions with low molecular weight (allergenic part), while high IgG1 and IgG4 antibody values were observed in fractions with high molecular weight. High IgG4 antibody values to crude mite extract and fractions with high molecular weight were detected in individuals who had received immunotherapy. However, IgG4 antibodies directed to allergenic part were found in only one out of 12 sera tested.

IgG4 -ELISA using DF1 (major allergen of *Dermatophagoides farinae*) as antigen was also performed. In the group treated with mite, significant

IgG4 antibody levels were detected in only one out of 13 sera tested. In the group treated with house dust, significant IgG4 antibodies were detected in only one out of 12 sera tested. Patients who showed high IgG4 antibody responses to crude mite extract and to high molecular weight did not show responses to allergenic part and DF1. The only case who showed positive IgG4 responses to allergenic part also reacted with DF1. Those results suggest that IgG1 and IgG4 antibody values in ELISA using crude mite extract as antigen do not reflect major allergen-specific antibody values. The importance of the use of partially purified antigens in measuring major allergen-specific IgG4 antibodies was also suggested.

Tags: Animal; Human

Descriptors: \*Allergens--isolation and purification--IP; \*IgE--analysis--AN; \*IgG--analysis--AN; \*Mites--immunology--IM; Allergens--immunology--IM; Asthma--immunology--IM; Chromatography, Gel; Enzyme-Linked Immunosorbent Assay

CAS Registry No.: 0 (Allergens); 0 (IgG); 37341-29-0 (IgE)

Record Date Created: 19890728

patients with rheumatoid arthritis.

Harats N; Rubinow A; Fischel R; Eilat D

Department of Medicine A, Hadassah University Hospital, Jerusalem, Israel.

British journal of rheumatology (ENGLAND) Jun 1989, 28 (3) p227-32, ISSN 0263-7103 Journal Code: B1T

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

There are inherent technical difficulties in measuring IgG rheumatoid factor (IgG-RF) in the serum of patients with rheumatoid arthritis (RA). These arise from measuring a reaction between two IgG molecules and the interference of IgM-RF in the reaction. We compared the prevalence of IgG-RF in whole sera and purified IgG fractions from 58 RA patients (43 of whom were latex or sheep cell agglutination positive). Methods of purification were: ammonium sulphate precipitation and DEAE cellulose or protein A-Sepharose chromatography. IgG-RF was measured by two methods: (1) radioimmunoassay and ELISA with a monoclonal myeloma IgG ( IgG4 ,K) as the antigen and radiolabelled rabbit anti-human IgG (previously absorbed on a column with IgG4 ,K) as the second antibody; (2) ELISA using rabbit IgG as the antigen and a peroxidase conjugated goat anti-human IgG as the second antibody. When whole sera were assayed, 18 (31%) contained IgG-RF. In contrast, only three of the IgG fractions (5%) were positive for IgG-RF by all methods, while the remainder were uniformly negative. These results suggest that IgG-RF determination in whole sera does not accurately reflect IgG-RF activity.

Tags: Comparative Study; Human

Descriptors: \*Arthritis, Rheumatoid--blood--BL; \*IgG--analysis--AN; \*Rheumatoid Factor--analysis--AN; Antigens--immunology--IM; Chromatography --methods--MT; Enzyme-Linked Immunosorbent Assay--methods--MT; IgG --immunology--IM; Immunoglobulins--immunology--IM; Myeloma Proteins --immunology--IM; Radioimmunoassay

CAS Registry No.: 0 (Antigens); 0 (IgG); 0 (Immunoglobulins); 0 (Myeloma Proteins); 0 (myeloma immunoglobulins); 9009-79-4 (Rheumatoid Factor)

Record Date Created: 19890721

7/9/23

ubclasses and their distribution according to the allotypes, subclasses and types of light chain]

Nekotorye osobennosti vydeleniia mielomnykh IgG cheloveka razlichnykh subklassov i ikh raspredelenie po allotipam, subklassam i tipam legkikh tsepei.

Basova EN; Stefani DV

Zhurnal mikrobiologii, epidemiologii, i immunobiologii (USSR) May 1977,

(5) p77-81, ISSN 0372-9311 Journal Code: Y90

Languages: RUSSIAN

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

A combination of the methods of preparative electrophoresis in agar gel and of the ion-exchange chromatography on DE-32 cellulose permitted to obtain 32 immunochemically pure human myelomic IgG. The proteins of the first three subclasses were obtained by elution in the 0.01 phosphate buffer at pH 7.6. **IgG4** was eluted with the increase of the gradient to 1 M NaCl in the phosphate buffer. Of the 32 human myelomic IgG 26 represented IgG1,4--IgG2, 1--IgG3, and 1-- **IgG4**. Among the 26 IgG1 11 were of the Gm(a) allotype, and 15 proteins had the Gm(f) determinant; one IgG2 protein was Gm(n+) and 3--Gm(n-). One IgG3 protein was referred to the Gm(b) variant. The majority of the IgG proteins of the subclass I had chi-type of the L-chains, and the chi: lambda ratio constituted 2.71.

Tags: Human

Descriptors: \*IgG--isolation and purification--IP; \*Immunoglobulins, Light-Chain--classification--CL; \*Multiple Myeloma--immunology--IM; Chromatography, Ion Exchange; Electrophoresis, Agar Gel; IgG --classification--CL; Immuno-electrophoresis--methods--MT

CAS Registry No.: 0 (IgG); 0 (Immunoglobulins, Light-Chain)

Record Date Created: 19771014

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3/9/28 (Item 5 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

07244824 90363365 PMID: 2392193

Anionic versus cationic immunoglobulin clearance in normal subjects: a novel approach to the evaluation of charge permselectivity.

Di Mario U; Cancelli A; Pietravalle P; Altamore G; Mariani G; De Rossi MG; Bernardini G; Pasquale A; Borgia MC; Frontoni S; et al

Department of Endocrinology, University of Rome La Sapienza, Italy.

Nephron (SWITZERLAND) 1990, 55 (4) p400-7, ISSN 0028-2766

Journal Code: NW8

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The excretion of proteins differing in charge (the different immunoglobulin subclasses) and/or size (albumin, immunoglobulins) were investigated in normal subjects in a number of physiological conditions aiming at the evaluation of renal charge permselectivity. In 101 randomly selected normal subjects the urinary excretion rates of albumin, **IgG4** (anionic proteins) and of total IgG (mostly cationic) were evaluated in basal conditions; the protein/creatinine urinary ratio and protein clearances were assessed in part of them. In addition, the intra- and interday variations of protein excretion were evaluated. Protein clearances were measured in a sample group after standardized physical exercise, after an amino acid load, and in orthostatism. Albumin, **IgG4** and IgG were assayed using sensitive methods developed in our laboratories. The excretion rate values of albumin, **IgG4** and total IgG (median, interquartile range) were 4.36 micrograms/min, (2.58-6.59), 4.25 ng/min (2.6-7.6), and 1.47 micrograms/min (0.85-2.44), respectively. The clearances of the three proteins (mean +/- SD) were 0.13 +/- 0.07, 0.017 +/- 0.012 and 0.14 +/- 0.08 ml/min x 10(-3), respectively. The **IgG4** /IgG ratio averaged 0.1 and was always below 0.25. Protein excretion rates showed a noticeable variation during the day and from day to day. Physical exercise, the change of posture and the amino acid load significantly increased proteinuria but did not significantly modify the anionic / cationic immunoglobulin ratio. Thus, the anionic / cationic immunoglobulin ratio of about one tenth, substantially stable during dynamic tests, in normal subjects may be considered an index of physiological renal protein charge permselectivity.

Tags: Female; Human; Male; Support, Non-U.S. Gov't

Descriptors: \*IgG--urine--UR; Adolescence; Adult; Age Factors; Albuminuria; Amino Acids--blood--BL; Amino Acids--pharmacology--PD; Child; Creatinine--urine--UR; Exertion; IgG--classification--CL; Middle Age; Reference Values; Sex Factors

CAS Registry No.: 0 (Amino Acids); 0 (IgG); 60-27-5 (Creatinine)

Record Date Created: 19901004

3/9/22 (Item 3 from file: 144)